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* * * * * * * * * *  Welcome to STN International  * * * * * * * * * *


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=> FIL STNGUIDE
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

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=> FIL HOME
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.06       0.27

FILE 'HOME' ENTERED AT 15:21:14 ON 09 MAR 2004

=> index biosci
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.48

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS,
       BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT,
       CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DISSABS, DDFB, DDFU,
       DGENE, DRUGB, DRUGMONOG2, ...' ENTERED AT 15:21:26 ON 09 MAR 2004

68 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> s dendrimer or dendrimers
         4   FILE ADISCTI
         5   FILE ADISINSIGHT
         8   FILE AGRICOLA
        73   FILE ANABSTR
         1   FILE AQUASCI
        25   FILE BIOBUSINESS
         8   FILE BIOCOMMERCE
       617   FILE BIOSIS
       105   FILE BIOTECHABS
       105   FILE BIOTECHDS
       297   FILE BIOTECHNO
        10   FILE CABA
        63   FILE CANCERLIT
      6602   FILE CAPLUS
        80   FILE CEABA-VTB
        79   FILE CEN
        57   FILE CIN
       199   FILE CONFSCI
         2   FILE CROPU
       269   FILE DISSABS
       152   FILE DDFU
       925   FILE DGENE
         7   FILE IMSDRUGNEWS
       169   FILE DRUGU
         7   FILE IMSRESEARCH
        34   FILE EMBAL
      1055   FILE EMBASE
       539   FILE ESBIOBASE
        86   FILE FEDRIP
         1   FILE FROSTI
         1   FILE FSTA
       384   FILE GENBANK
       532   FILE IFIPAT
      1076   FILE JICST-EPLUS
         1   FILE KOSMET
        86   FILE LIFESCI
         7   FILE MEDICONF
46 FILES SEARCHED...
       626   FILE MEDLINE
        78   FILE NTIS
      1296   FILE PASCAL
         8   FILE PHAR
         1   FILE PHIC
        21   FILE PHIN
       189   FILE PROMT
         3   FILE RDISCLOSURE
      5058   FILE SCISEARCH
       406   FILE TOXCENTER
      2052   FILE USPATFULL
       178   FILE USPAT2
         1   FILE VETU
       686   FILE WPIDS
       686   FILE WPINDEX

  52 FILES HAVE ONE OR MORE ANSWERS,   68 FILES SEARCHED IN STNINDEX

L1    QUE DENDRIMER OR DENDRIMERS

=> file hits
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     1.14       1.62

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=> s l1
L2        24017 L1


=> file home
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
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FULL ESTIMATED COST                              60.14     132.21

FILE 'HOME' ENTERED AT 15:24:47 ON 09 MAR 2004

=> file caplus, biosis, medline, lifesci
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                               0.21     132.42

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=> s (peptide or polypeptide) (10a) (dendrimer?)
L3         223 (PEPTIDE OR POLYPEPTIDE) (10A) (DENDRIMER?)

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4          155 DUP REM L3 (68 DUPLICATES REMOVED)

=> file home
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
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FULL ESTIMATED COST                               8.09     140.51

FILE 'HOME' ENTERED AT 15:26:43 ON 09 MAR 2004

=> file hits
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
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FULL ESTIMATED COST                               0.42     140.93

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FILE 'MEDLINE' ENTERED AT 15:27:54 ON 09 MAR 2004

=> s l4 and PD<19990723
   2 FILES SEARCHED...
'19990723' NOT A VALID FIELD CODE
L5          55 L4 AND PD<19990723

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6          55 DUP REM L5 (0 DUPLICATES REMOVED)

=> s l6 and (multifunctional (w) core)
L7           0 L6 AND (MULTIFUNCTIONAL (W) CORE)

=> s l6 and ornithine
L8           0 L6 AND ORNITHINE

=> d l6 trial 1-10
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L6 ANSWER 1 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:656217 CAPLUS
DN 139:196251
TI Multiple antigen glycopeptide carbohydrate vaccine
IN Bay, Sylvie; Cantacuzene, Daniele; Leclerc, Claude; Lo-Man, Richard; Vicher-Guerre, Sophie
PA Institut Pasteur, Fr.
SO U.S. Pat. Appl. Publ., 46 pp., Cont.-in-part of U. S. Ser. No. 49,847.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003157115	A1	20030821	US 1999-405986	19990927
	US 6676946	B2	20040113		
	WO 9843677	A1	19981008	WO 1998-EP1922	19980327 <--

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

PRAI	US 1997-41726P	P	19970327
	US 1998-49847	A2	19980327
	WO 1998-EP1922	A	19980327

L6 ANSWER 2 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:174523 CAPLUS
DN 132:204587
TI Paramagnetic cobalt(II) as a nuclear magnetic resonance probe for the study of metallo-macromolecules: from peptides and proteins to dendrimers
AU Epperson, Jon Derek
CS Univ. of South Florida, Tampa, FL, USA
SO (***1999***) 348 pp. Avail.: UMI, Order No. DA9943869
From: Diss. Abstr. Int., B 2000, 60(8), 3925
DT Dissertation
LA English

L6 ANSWER 3 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:686600 CAPLUS
DN 131:303431
TI Separation of active complexes such as polynucleotide-transfecting component complexes
IN Szoka, Francis C., Jr.; Xu, Yuhong; Wang, Jinkang
PA The Regents of the University of California, USA
SO U.S., 16 pp., Cont.-in-part of U.S. Ser. No. 92,200, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5972600	A	19991026	US 1995-482110	19950607
	EP 1236473	A2	20020904	EP 2002-1408	19930405
	EP 1236473	A3	20030115		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE

	US 6113946	A	20000905	US 1995-469433	19950606
	US 5661025	A	19970826	US 1995-480463	19950607 <--
	US 5990089	A	19991123	US 1995-486826	19950607
	US 5811406	A	19980922	US 1995-482254	19950609 <--
	CA 2223934	AA	19961219	CA 1996-2223934	19960528 <--
	WO 9640264	A1	19961219	WO 1996-US7824	19960528 <--

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML

	AU 9660248	A1	19961230	AU 1996-60248	19960528 <--
	AU 714526	B2	20000106		
	EP 831923	A1	19980401	EP 1996-917839	19960528 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

	JP 2001517061	T2	20011002	JP 1997-500774	19960528
	JP 2004000245	A2	20040108	JP 2003-200068	20030722
PRAI	US 1992-864876	B2	19920403		
	US 1992-913669	B2	19920714		
	US 1993-92200	B2	19930714		
	EP 1993-909508	A3	19930405		
	JP 1993-517793	A3	19930405		
	US 1995-482110	A2	19950607		
	US 1995-485430	A2	19950607		
	WO 1996-US7824	W	19960528		

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:662311 CAPLUS
DN 132:50241
TI A direct method for the formation of ***peptide*** and carbohydrate ***dendrimers***
AU Mitchell, Jeffrey P.; Roberts, Kade D.; Langley, Jane; Koentgen, Frank; Lambert, John N.
CS School of Chemistry, The University of Melbourne, Parkville, 3052, Australia
SO Bioorganic & Medicinal Chemistry Letters (***1999***), 9(19), 2785-2788
CODEN: BMCLE8; ISSN: 0960-894X
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 132:50241
RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:152800 CAPLUS
DN 130:348694
TI Multiple-Antigenic Peptides of Histidine-Rich Protein II of Plasmodium falciparum: Dendrimeric Biomineralization Templates
AU Ziegler, James; Chang, Richard T.; Wright, David W.
CS Department of Chemistry and Biochemistry, Duquesne University, Pittsburgh, PA, 15282-1530, USA
SO Journal of the American Chemical Society (***1999***), 121(11), 2395-2400
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:442455 CAPLUS
DN 131:214537
TI ***Peptide*** ***dendrimers*** from natural amino acids
AU Kim, Yoonkyung; Zeng, Fanwen; Zimmerman, Steven C.
CS Department of Chemistry, University of Illinois, Urbana, IL, 61801, USA
SO Chemistry--A European Journal (***1999***), 5(7), 2133-2138
CODEN: CEUJED; ISSN: 0947-6539
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:26629 CAPLUS
DN 130:197065
TI Synthesis, Characterization, Electrochemistry, and EQCM Studies of Polyamidoamine Dendrimers Surface-Functionalized with Polypyridyl Metal Complexes
AU Storrier, Gregory D.; Takada, Kazutake; Abruna, Hector D.
CS Department of Chemistry Baker Laboratory, Cornell University, Ithaca, NY, 14853-1301, USA
SO Langmuir (***1999***), 15(3), 872-884
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
RE.CNT 95 THERE ARE 95 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:522869 CAPLUS
DN 131:282911
TI Enhancement of hemolytic and catecholamine releasing activities of mastoparan by the dendrimeric formation
AU Kurita, Takashi; Kosemura, Yoshiko; Kumakura, Konosuke; Kasai, Hisataka; Ito, Hisashi
CS Department of Chemistry, College of Science and Engineering, Aoyama Gakuin University, Tokyo, 157-8572, Japan
SO Nippon Kagaku Kaishi (***1999***), (8), 545-552
CODEN: NKAKB8; ISSN: 0369-4577
PB Nippon Kagakkai
DT Journal
LA Japanese

L6 ANSWER 9 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:541950 CAPLUS
TI Synthesis and coordination chemistry of lipophilic and oligomeric derivatives of cyclam for use in cancer therapy/diagnosis.
AU Sibert, John W.; Sellers, Justin K.
CS Department of Chemistry, East Carolina University, Greenville, NC, 27858-4353, USA
SO Book of Abstracts, 218th ACS National Meeting, New Orleans, Aug. 22-26 (***1999***), INOR-497 Publisher: American Chemical Society, Washington, D. C.
CODEN: 67ZJA5
DT Conference; Meeting Abstract
LA English

L6 ANSWER 10 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:92269 CAPLUS
TI Highly-functionalized silsesquioxanes (R8Si8O12 and R'R7Si8O12) as scaffolds
AU Wyndham, Kevin D.; Feher, Frank J.
CS Department of Chemistry, University of California, Irvine, CA, 92697, USA
SO Book of Abstracts, 217th ACS National Meeting, Anaheim, Calif., March 21-25 (***1999***), INOR-452 Publisher: American Chemical Society, Washington, D. C.
CODEN: 67GHA6
DT Conference; Meeting Abstract
LA English

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COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	21.24	162.17

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	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.42	162.59

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CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 3 March 2004 (20040303/ED)

FILE RELOADED: 19 October 2003.

```
=> s (peptide or polypeptide) (2a) dendrimer?
        238227 PEPTIDE
         75076 POLYPEPTIDE
           633 DENDRIMER?
L9          34 (PEPTIDE OR POLYPEPTIDE) (2A) DENDRIMER?

=> d l9 bib ab 1-34

L9   ANSWER 1 OF 34  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN   2004:63932  BIOSIS
DN   PREV200400065423
TI   Synthetic peptides in the form of dendrimers become resistant to protease
     activity.
AU   Bracci, Luisa [Reprint Author]; Falciani, Chiara; Lelli, Barbara; Lozzi,
     Luisa; Runci, Ylenia; Pini, Alessandro; De Montis, Maria Graziella;
     Tagliamonte, Alessandro; Neri, Paolo
CS   Department of Molecular Biology, Laboratory of Biochemistry and Molecular
     Biology, University of Siena, Via Fiorentina, 1, 53100, Siena, Italy
     bracci1@unisi.it
SO   Journal of Biological Chemistry, (November 21 2003) Vol. 278, No. 47, pp.
     46590-46595. print.
     CODEN: JBCHA3. ISSN: 0021-9258.
DT   Article
LA   English
ED   Entered STN: 28 Jan 2004
     Last Updated on STN: 28 Jan 2004
AB   In previous papers, we observed that   ***dendrimers***   of
       ***peptide***   mimotopes of the nicotinic receptor ligand site are
strong
     antidotes against the lethality of the nicotinic receptor ligand
     alpha-bungarotoxin.  Although their in vitro activity is identical to that
     of dendrimers, the corresponding monomeric peptide mimotopes are not
     effective in vivo.  Because the higher in vivo efficiency of dendrimers
     could not in this case be related to polyvalent interaction, the stability
     to blood protease activity of monomeric versus tetrabranched dendrimeric
     mimotope peptides was compared here by incubating three different
     mimotopes with human plasma and serum.  Unmodified peptides and cleaved
     sequences were followed by high pressure liquid chromatography and mass
     spectrometry.  Tetrabranched peptides were shown to be much more stable in
     plasma and also in serum.  To assess the notable stability of multimeric
     peptides, different bioactive neuropeptides, including enkephalins,
     neurotensin and nociceptin, were synthesized in monomeric and
     tetrabranched forms and incubated with human plasma and serum and with rat
     brain membrane extracts.  All the tetrabranched neuropeptides fully
     retained biological activity and generally showed much greater stability
     to blood and brain protease activity.  Some tetrabranched peptides were
     also resistant to trypsin and chymotrypsin.  Our findings provide new
     insights into the possible therapeutic use of bioactive peptides.

L9   ANSWER 2 OF 34  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN   2003:578428  BIOSIS
DN   PREV200300584062
TI   Low molecular mass   ***peptide***     ***dendrimers***   that express
     antimicrobial properties.
AU   Janiszewska, Jolanta; Swieton, Joanna; Lipkowski, Andrzej W.;
     Urbanczyk-Lipkowska, Zofia [Reprint Author]
CS   Institute of Organic Chemistry, Polish Academy of Sciences, 01-224,
     Warsaw, Poland
     ocryst@icho.edu.pl
SO   Bioorganic & Medicinal Chemistry Letters, (3 November 2003) Vol. 13, No.
     21, pp. 3711-3713. print.
     CODEN: BMCLE8. ISSN: 0960-894X.
DT   Article
LA   English
ED   Entered STN: 10 Dec 2003
     Last Updated on STN: 10 Dec 2003
AB   A series of low-generation dendrimeric peptides was synthesized in an
     attempt to evaluate their antimicrobial potency.  All tested dendrimeric
     peptides in which lysine was a starting and branching element expressed
     moderate activity against Staphylococcus aureus NCTC 4163, and Escherichia
     coli NCTC 8196.

L9   ANSWER 3 OF 34  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN   2003:562612  BIOSIS
DN   PREV200300563561
TI   Calixarene amino acids; building blocks for calixarene peptides and
       ***peptide***  -  ***dendrimers***  .
AU   Xu, Heng; Kinsel, Gary R.; Zhang, Jiang; Li, Meiling; Rudkevich, Dmitry M.
     [Reprint Author]
CS   Department of Chemistry and Biochemistry, University of Texas at
     Arlington, Box 19065, Arlington, TX, 76019-0065, USA
     rudkevich@uta.edu
SO   Tetrahedron, (28 July 2003) Vol. 59, No. 31, pp. 5837-5848. print.
     ISSN: 0040-4020 (ISSN print).
DT   Article
LA   English
ED   Entered STN: 3 Dec 2003
     Last Updated on STN: 3 Dec 2003
AB   A modular strategy towards receptor macromolecules is presented, which
     combines synthetically diverse peptide synthesis with highly functional
     calixarene chemistry.  The design and synthesis of calix(4)arene amino
     acids 1a-f, calix-lysines, is described, which were used as construction
     blocks to assemble nanoscale, multivalent entities-calix-peptides 2 and
     calix-  ***peptide***  -  ***dendrimers***  3.

L9   ANSWER 4 OF 34  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN   2003:518609  BIOSIS
DN   PREV200300512818
TI   USE OF SYNTHETIC   ***DENDRIMER***     ***PEPTIDE***  'S TO MEDIATE THE
     DELIVERY OF A SENSE OLIGONUCLEOTIDE.
AU   Marano, R. J. [Reprint Author]; Wimmer, N.; Kearns, P. S.; Thomas, B. G.;
     Toth, I.; Wilson, A. S. [Reprint Author]; Brankov, M. [Reprint Author];
     Rakoczy, P. E. [Reprint Author]
CS   Molecular Ophthalmology, Lions Eye Institute, Nedlands, Australia
SO   ARVO Annual Meeting Abstract Search and Program Planner, (2003) Vol. 2003,
     pp. Abstract No. 1078. cd-rom.
     Meeting Info.: Annual Meeting of the Association for Research in Vision
     and Ophthalmology. Fort Lauderdale, FL, USA. May 04-08, 2003. Association
     for Research in Vision and Ophthalmology.
DT   Conference; (Meeting)
     Conference; Abstract; (Meeting Abstract)
LA   English
ED   Entered STN: 5 Nov 2003
```

Last Updated on STN: 5 Nov 2003

AB Purpose: To determine if lipid-lysine dendrimers are a viable option for the delivery of oligonucleotides for use in gene therapy. Methods: D407 cells were transfected with nine different dendrimers complexed with an oligonucleotide (ODN-1) proven to possess an anti vascular endothelial growth factor (VEGF) effect. The efficacy of the dendrimers to deliver ODN-1 to the target site was determined by calculating the levels of VEGF protein and mRNA expression under hypoxic conditions at 24 and 48 hours post transfection using ELISA and RT-PCR respectively, and comparing this to results obtained using a commercially available transfecting agent. The two most effective dendrimer complexes were subsequently injected into the vitreous of rat eyes and later laser photocoagulated to induce choroidal neovascularisation (CNV). The extent of CNV was determined using fluorescein angiography. Results: In vitro data indicated that all of the dendrimer / ODN-1 complexes resulted in a 40% to 60% decrease in the production of both VEGF protein and mRNA in the first 24 hour period. However, after 48 hours, several of the dendrimers were unable to maintain a reduction in the expression of VEGF indicating poor DNA protection qualities. Both the transfecting and protective ability seemed to be related to the length and number of lipidic amino acids (Laa's) associated with each dendrimer. It was found that dendrimer 4, which possessed two C14 Laa's and eight free amino groups, achieved the second highest transfection efficacy of 89% and in addition maintained the greatest reduction in VEGF expression for the 24 and 48 hour time periods (48% - 50% respectively). In vivo, eyes that were treated with dendrimer 4 showed a 70% lower rate of CNV compared to that of eyes treated with dendrimer minus the oligonucleotide for up to 3 months post injection / lasering. Conclusion: We have shown that synthetic lipophilic charged dendrimers can be used for gene delivery both in vivo and in vitro, resulting in a therapeutic outcome and will be a valuable tool in gene therapy.

L9 ANSWER 5 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:462648 BIOSIS
DN PREV200300462648
TI Synthesis of ***peptide*** ***dendrimers*** based on a beta-cyclodextrin core with guest binding ability.
AU Muhanna, Abdullah M. A.; Ortiz-Salmeron, Emilia; Garcia-Fuentes, Luis; Gimenez-Martinez, Juan J.; Vargas-Berenguel, Antonio [Reprint Author]
CS Area de Quimica Organica, Universidad de Almeria, 04120, Almeria, Spain avargas@ual.es
SO Tetrahedron Letters, (4 August 2003) Vol. 44, No. 32, pp. 6125-6128. print.
CODEN: TELEAY. ISSN: 0040-4039.
DT Article
LA English
ED Entered STN: 8 Oct 2003
Last Updated on STN: 8 Oct 2003
AB The synthesis of three first-order dendrimers based on a beta-cyclodextrin core containing fourteen Val, Phe and Val-Phe residues is described. The guest binding ability of the tetradecavalent peptidyl beta-cyclodextrin derivative has been tested by calorimetric titration and the thermodynamic parameters for the complex formation with adamantanecarboxylic acid were obtained.

L9 ANSWER 6 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:376055 BIOSIS
DN PREV200300376055
TI Membrane permeable alpha,epsilon- ***peptide*** ***dendrimers*** .
AU Eom, K. D. [Reprint Author]; Yang, J.-L. [Reprint Author]; Tam, J. P. [Reprint Author]
CS Department of Microbiology and Immunology, Vanderbilt University, Nashville, TN, 37232, USA
SO Biopolymers, (2003) Vol. 71, No. 3, pp. 380. print.
Meeting Info.: 18th American Peptide Symposium on Peptide Revolution: Genomics, Proteomics and Therapeutics. Boston, MA, USA. July 19-23, 2003. American Peptide Society.
ISSN: 0006-3525 (ISSN print).
DT Conference; (Meeting)
Conference; (Meeting Poster)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 13 Aug 2003
Last Updated on STN: 13 Aug 2003

L9 ANSWER 7 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:365340 BIOSIS
DN PREV200300365340
TI Membrane-active delta- and epsilon- ***peptide*** ***dendrimers*** : A novel design of antimicrobials.
AU Yu, Q. [Reprint Author]; Wu, C. [Reprint Author]; Yang, J. L. [Reprint Author]; Tam, J. P. [Reprint Author]
CS Department of Microbiology and Immunology, Vanderbilt University, Nashville, TN, 37232, USA
SO Biopolymers, (2003) Vol. 71, No. 3, pp. 323. print.
Meeting Info.: 18th American Peptide Symposium on Peptide Revolution: Genomics, Proteomics and Therapeutics. Boston, MA, USA. July 19-23, 2003. American Peptide Society.
ISSN: 0006-3525 (ISSN print).
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 6 Aug 2003
Last Updated on STN: 6 Aug 2003

L9 ANSWER 8 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:365206 BIOSIS
DN PREV200300365206
TI Synthetic peptides in the form of dendrimers can become resistant to protease activity.
AU Falciani, C. [Reprint Author]; Lozzi, L. [Reprint Author]; Lelli, B. [Reprint Author]; Runci, Y. [Reprint Author]; Pini, A. [Reprint Author]; Neri, P. [Reprint Author]; Bracci, L. [Reprint Author]
CS Department of Molecular Biology, University of Siena, Via Fiorentina, 1, 53100, Siena, Italy
SO Biopolymers, (2003) Vol. 71, No. 3, pp. 293. print.
Meeting Info.: 18th American Peptide Symposium on Peptide Revolution: Genomics, Proteomics and Therapeutics. Boston, MA, USA. July 19-23, 2003. American Peptide Society.
ISSN: 0006-3525 (ISSN print).
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 6 Aug 2003

Last Updated on STN: 6 Aug 2003

L9 ANSWER 9 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:342036 BIOSIS
DN PREV200300342036
TI ***Peptide*** -functionalized polyphenylene ***dendrimers*** .
AU Herrmann, Andreas; Mihov, Gueorgui; Vandermeulen, Guido W. M.; Klok, Harm-Anton; Muellen, Klaus [Reprint Author]
CS Max Planck Institute for Polymer Research, Ackermannweg 10, D-55128, Mainz, Germany
muellen@mpip-mainz.mpg.de
SO Tetrahedron, (26 May 2003) Vol. 59, No. 22, pp. 3925-3935. print.
ISSN: 0040-4020 (ISSN print).
DT Article
LA English
ED Entered STN: 23 Jul 2003
Last Updated on STN: 23 Jul 2003
AB This contribution describes the synthesis of polyphenylene dendrimers that are functionalized with up to 16 lysine residues or substituted with short peptide sequences composed of 5 lysine or glutamic acid repeats and a C- or N-terminal cysteine residue. Polyphenylene dendrimers were prepared via a sequence of Diels-Alder cycloaddition and deprotection reactions from cyclopentadienone building blocks. Single amino acids could be introduced on the periphery of the dendrimers by using amino acid substituted cyclopentadienones in the last Diels-Alder addition reaction. Alternatively, peptide sequences were attached via a chemoselective reaction, which involved the addition of the sulfhydryl group of a cysteine residue of an oligopeptide to a maleimide moiety present on the surface of the dendrimer. These amino acid and ***peptide*** functionalized ***dendrimers*** may be of interest as model compounds to study DNA complexation and condensation or as building blocks for the preparation of novel supramolecular architectures via layer-by-layer self-assembly.

L9 ANSWER 10 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:116029 BIOSIS
DN PREV200300116029
TI Synthetic approaches to multivalent lipopeptide dendrimers containing cyclic disulfide epitopes of foot-and-mouth disease virus.
AU De Oliveira, Eliandre; Villen, Judit; Giralt, Ernest; Andreu, David [Reprint Author]
CS Department of Experimental and Health Sciences, Pompeu Fabra University, Doctor Aiguader 80, 08003, Barcelona, Spain
david.andreu@cexs.upf.es
SO Bioconjugate Chemistry, (January-February 2003) Vol. 14, No. 1, pp. 144-152. print.
ISSN: 1043-1802 (ISSN print).
DT Article
LA English
ED Entered STN: 26 Feb 2003
Last Updated on STN: 26 Feb 2003
AB The synthesis of a multiantigenic ***peptide*** ***dendrimer*** incorporating four copies of a cyclic disulfide epitope has been undertaken. Since standard chemoselective ligation procedures involving thioether formation are inadvisable in the presence of a preformed disulfide, conjugation through a peptide bond between the lipidated branched lysine scaffold and a suitably protected version of the cyclic disulfide has been used instead. Several synthetic approaches to the partially protected cyclic disulfide peptide have been explored. The most effective involves building a minimally protected version of the peptide by Boc solid phase synthesis, using fluorenyl-based anchorings and cysteine protecting groups. Peptide-resin cleavage and cysteine deprotection/oxidation are performed simultaneously by base-promoted elimination. The cyclic disulfide epitope is readily obtained in sufficient amounts by this procedure and subsequently incorporated to the lipidated lysine core by peptide bond formation in solution. A final acid deprotection step in anhydrous HF yields a peptide construction containing a maximum of three copies of the cyclic disulfide epitope, the lower substitution being attributable to steric constraints. This immunogen has been successfully used in an experimental vaccination trial against foot-and-mouth disease virus.

L9 ANSWER 11 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:58428 BIOSIS
DN PREV200300058428
TI Biological applications of dendrimers.
AU Cloniger, Mary J. [Reprint Author]
CS Department of Chemistry and Biochemistry, Montana State University, 108 Gaines Hall, Bozeman, 59717, USA
mcloninger@chemistry.montana.edu
SO Current Opinion in Chemical Biology, (December 2002) Vol. 6, No. 6, pp. 742-748. print.
ISSN: 1367-5931 (ISSN print).
DT Article
General Review; (Literature Review)
LA English
ED Entered STN: 22 Jan 2003
Last Updated on STN: 22 Jan 2003

L9 ANSWER 12 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2002:557320 BIOSIS
DN PREV200200557320
TI Small ***peptide*** ***dendrimers*** with antimicrobial properties.
AU Janiszewska, J. [Reprint author]; Ostrowska, A. [Reprint author]; Lipkowski, A. W. [Reprint author]; Urbanczyk-Lipkowska, Z.
CS Industrial Chemistry Research Institute, Warsaw, Poland
SO Journal of Peptide Science, (2002) Vol. 8, No. Supplement, pp. S184. print.
Meeting Info.: 27th European Peptide Symposium. Sorrento, Italy. August 31-September 06, 2002.
ISSN: 1075-2617.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LA English
ED Entered STN: 30 Oct 2002
Last Updated on STN: 30 Oct 2002

L9 ANSWER 13 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2002:546003 BIOSIS
DN PREV200200546003
TI Design and synthesis of dendrimers based on poly(Pro) sequences. Exploration of their use as drug-delivery agents.

AU Royo, M. [Reprint author]; Sanclimens, G. [Reprint author]; Crespo, L. [Reprint author]; Pons, M. [Reprint author]; Albericio, F. [Reprint author]; Giralt, E. [Reprint author]
CS Dpt. Quimica Organica, Universitat de Barcelona, Barcelona, Spain
SO Journal of Peptide Science, (2002) Vol. 8, No. Supplement, pp. S62. print. Meeting Info.: 27th European Peptide Symposium. Sorrento, Italy. August 31-September 06, 2002.
ISSN: 1075-2617.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 23 Oct 2002
Last Updated on STN: 23 Oct 2002

L9 ANSWER 14 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2002:535732 BIOSIS
DN PREV200200535732
TI Syntheses of polycationic ***dendrimers*** on lipophilic ***peptide*** core for complexation and transport of oligonucleotides.
AU Wimmer, Norbert; Marano, Robert J.; Kearns, Philip S.; Rakoczy, Elizabeth P.; Toth, Istvan [Reprint author]
CS School of Pharmacy, University of Queensland, Steele Building, Saint Lucia, QLD, 4072, Australia
i.toth@pharmacy.uq.edu.au
SO Bioorganic and Medicinal Chemistry Letters, (16 September, 2002) Vol. 12, No. 18, pp. 2635-2637. print.
CODEN: BMCLE8. ISSN: 0960-894X.
DT Article
LA English
ED Entered STN: 16 Oct 2002
Last Updated on STN: 16 Oct 2002
AB Synthesis of novel polycationic lipophilic peptide core(s) was accomplished and these agents successfully transfected human retinal pigment epithelium cells with ODN1 upon complexation with the oligonucleotide. The level of transfection was indirectly measured by the decreased production of the protein hVEGF (human vascular endothelial growth factor) in comparison to the transfection agent cytofectin GSVTM.

L9 ANSWER 15 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2002:500030 BIOSIS
DN PREV200200500030
TI ***Peptide*** ***dendrimers*** based on polyproline helices.
AU Crespo, Laia; Sanclimens, Gloria; Montaner, Beatriz; Perez-Tomas, Ricardo; Royo, Miriam [Reprint author]; Pons, Miquel [Reprint author]; Albericio, Fernando [Reprint author]; Giralt, Ernest [Reprint author]
CS Departament de Quimica Organica, Universitat de Barcelona, Marti i Franques 1, 08028, Barcelona, Spain
egiralt@qo.ub.es
SO Journal of the American Chemical Society, (July 31, 2002) Vol. 124, No. 30, pp. 8876-8883. print.
CODEN: JACSAT. ISSN: 0002-7863.
DT Article
LA English
ED Entered STN: 25 Sep 2002
Last Updated on STN: 25 Sep 2002
AB We present a new family of ***peptide*** ***dendrimers*** based on polyproline helices and cis-4-amino-L-proline as a branching unit. Dendrimers were synthesized by a convergent solid-phase peptide synthesis approach. The conformational transition between polyproline type I helix and polyproline type II helix was observed by circular dichroism in branched polyproline building blocks with more than 14 proline residues and in the resulting dendrimers. Both linear and dendritic polyprolines were found to be actively internalized by rat kidney cells. Preliminary results show that the antibiotic ciprofloxacin form complexes with branched polyproline chains in 99.5% propanol.

L9 ANSWER 16 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:538673 BIOSIS
DN PREV200100538673
TI Synthesis, isolation and characterization of Plasmodium falciparum antigenic tetrabranched ***peptide*** ***dendrimers*** obtained by thiazolidine linkages.
AU Chaves, F. [Reprint author]; Calvo, J. C.; Carvajal, C.; Rivera, Z.; Ramirez, L.; Pinto, M.; Trujillo, M.; Guzman, F.; Patarroyo, M. E. [Reprint author]
CS Instituto de Immunologia, Hospital San Juan de Dios, Universidad Nacional de Colombia, Carrera 10 No. 1-99 sur, Bogota, Colombia
franchav@hotmail.com
SO Journal of Peptide Research, (October, 2001) Vol. 58, No. 4, pp. 307-316. print.
ISSN: 1397-002X.
DT Article
LA English
ED Entered STN: 21 Nov 2001
Last Updated on STN: 25 Feb 2002
AB Different chemical alternatives were evaluated for obtaining immunogenic polypeptidic macromolecules which could then be used as vaccines. These were based on the ligation reaction between an unprotected immunogenic peptide and an unprotected multifunctional core ***peptide*** ; polyantigens, designated ***dendrimers*** because their form resembles that of dendritic cells, were thus obtained. The antigen-core ligation alternatives, studied by indirect synthesis, were the formation of oxime, hydrazone and thiazolidine linkages, making use of the reaction between a weak base (acting as nucleophile) and an alkyl aldehyde. The other alternative was the formation of a thioether linkage between a sulfydryl and an alkyl halide. Finally, a multiple antigen peptide (MAP) was synthesized by direct synthesis. All reactions were monitored by SEC-HPLC and SDS-PAGE. Dendrimer molecular mass obtained was confirmed by MS MALDI-TOF. Dendrimer purification was first carried out by concentrating crude reaction products with CP-5000 centricons and (using SEC-HPLC) pure tetramers were then obtained. A 20-residue 9376 immunogenic sequence, from Plasmodium falciparum apical merozoite antigen protein (AMA-1), was used to study the best alternative for chemical ligation. It was observed that thiazolidine formation proceeded with greater yield and in less time than the others. A tetramer has been simultaneously synthesized via thiazolidine with the SPf-66 antimalarial vaccine 45-residue monomer, proving the technique's versatility. The 9376 peptide disulfide bound polymer and SPf-66 (as well as their tetrameric thiazolidine dendrimers) were inoculated in rabbits to evaluate their antibody response. It was observed that titers for tetrameric thiazolidine dendrimers were not just greater but were also sustained overtime. Western blot for pre-immune and immune sera showed that dendrimer sera recognized specific Plasmodium falciparum proteins as well as disulfide-bound polymers.

L9 ANSWER 17 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:534631 BIOSIS
DN PREV200100534631
TI Carbohydrate-based templates for synthetic vaccines and drug delivery.
AU McGeary, Ross P.; Jablonkai, Istvan; Toth, Istvan [Reprint author]
CS School of Pharmacy, The University of Queensland, Steele Building, Brisbane, Qld, 4072, Australia
i.toth@pharmacy.uq.edu.au
SO Tetrahedron, (8 October, 2001) Vol. 57, No. 41, pp. 8733-8742. print.
CODEN: TETRAB. ISSN: 0040-4020.
DT Article
LA English
ED Entered STN: 14 Nov 2001
Last Updated on STN: 23 Feb 2002
AB Methyl tetra-O-allyl, and tetra-O-(2-(tetrahydro-2H-pyranyl)oxy.-3-oxapentyl glucosides, and tetra-O-(cyanoethyl)galactosyl azide were converted into derivatives containing linkers with terminal carboxylic acid functionalities at the anomeric position and bearing four arms with phthaloyl- or BOC-protected terminal amino groups. These molecules were suitable for use in solid-phase peptide synthesis and for the preparation of dendrimers containing multiple copies of peptides.

L9 ANSWER 18 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:364109 BIOSIS
DN PREV200100364109
TI Photoinduced hydrogen evolution with ***peptide*** ***dendrimer*** -multi-Zn(II)-porphyrin, viologen, and hydrogenase.
AU Sakamoto, Muneyoshi; Kamachi, Toshiaki; Okura, Ichiro; Ueno, Akihiko; Mihara, Hisakazu [Reprint author]
CS Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology, Nagatsuta, Yokohama, 226-8501, Japan
hmihara@bio.titech.ac.jp
SO Biopolymers, (August, 2001) Vol. 59, No. 2, pp. 103-109. print.
CODEN: BIPMAA. ISSN: 0006-3525.
DT Article
LA English
ED Entered STN: 2 Aug 2001
Last Updated on STN: 19 Feb 2002
AB To construct an artificial photosynthetic system, multi-Zn(II)-mesoporphyrins in ***peptide*** ***dendrimers*** were equipped as a photosensitizer of photoinduced hydrogen evolution in a four-component system (electron donor, photosensitizer, electron carrier, and catalyst), so that hydrogen was evolved effectively by the dendrimer architecture, for the first time. The hydrogen evolution activity was correlated to the photoreduction ability of viologen by the Zn-porphyrin- ***peptide*** ***dendrimers*** . Additionally, using positively charged methyl-viologen as an electron carrier, the photoinduced hydrogen evolution function with the positively charged ***peptide*** ***dendrimer*** was superior to that with the negatively charged ***peptide*** ***dendrimer*** , despite that the positive dendrimer did not strongly bind the positively charged methyl-viologen with the electrostatic interaction. By contrast, when zwitterionic propylviologen sulfonate was used, photoreduction and hydrogen evolution properties were identical between the positively and the negatively charged dendrimers. These results demonstrated that the dynamic interaction between the positive dendrimer and methyl-viologen was preferable for the photoreduction and hydrogen evolution, and that the three-dimensional assembly of Zn(II)-mesoporphyrins using the ***peptide*** ***dendrimers*** was effective as a photosensitizer in the artificial photosynthesis.

L9 ANSWER 19 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:230753 BIOSIS
DN PREV200100230753
TI Use of orthogonal ligation methods for the synthesis of a hetero ***peptide*** ***dendrimer*** .
AU Liu, Chuan-Fa [Reprint author]; Rao, Chang; Tam, James P.
CS Amgen Inc., 3200 Walnut St., Boulder, CO, 80301, USA
SO Fields, Gregg B.; Tam, James P.; Barany, George. (2000) pp. 118-119. Peptides for the new millennium. print.
Publisher: Kluwer Academic Publishers, 3300 AA, Dordrecht, Netherlands; Kluwer Academic Publishers, 101 Phillip Drive, Assinippi Park, Norwell, MA, 02061, USA.
Meeting Info.: 16th American Peptide Symposium. Minneapolis, MI, USA. June 26-July 01, 1999. American Peptide Society.
ISBN: 0-7923-6445-7 (cloth).
DT Book
Conference; (Meeting)
Book; (Book Chapter)
Conference; (Meeting Paper)
LA English
ED Entered STN: 16 May 2001
Last Updated on STN: 18 Feb 2002

L9 ANSWER 20 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2000:397734 BIOSIS
DN PREV200000397734
TI Design and synthesis of AB3-type (A = 1,3,5-benzenetricarbonyl unit; B = Glu diOMe or Glu7 Octa OMe) ***peptide*** ***dendrimers*** : Crystal structure of the first generation.
AU Ranganathan, Darshan [Reprint author]; Kurur, Sunita; Gilardi, Richard; Karle, Isabella L.
CS Discovery Laboratory, Indian Institute of Chemical Technology, Hyderabad, 500 007, India
SO Biopolymers, (October 5, 2000) Vol. 54, No. 4, pp. 289-295. print.
CODEN: BIPMAA. ISSN: 0006-3525.
DT Article
LA English
ED Entered STN: 20 Sep 2000
Last Updated on STN: 8 Jan 2002
AB The first generation molecule of glutamic acid-based dendrons on a 1,3,5-benzenetricarbonyl core leads to a cylindrical assembly as demonstrated by single crystal x-ray diffraction. The benzene pi-pi stack (A) is stabilized by vertical NH cntdotcntdotcntdot OdbdC hydrogen bonding with each subunit participating in three intermolecular hydrogen bonds related by three-fold rotation symmetry.

L9 ANSWER 21 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2000:278879 BIOSIS
DN PREV200000278879
TI Separation of active complexes.
AU Szoka, Francis C. [Inventor, Reprint author]; Xu, Yuhong [Inventor]; Wang, Jinkang [Inventor]
CS San Francisco, CA, USA

ASSIGNEE: The Regents of the University of California, Oakland, CA, USA
PI US 5972600 October 26, 1999
SO Official Gazette of the United States Patent and Trademark Office Patents, (Oct. 26, 1999) Vol. 1227, No. 4. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 6 Jul 2000
Last Updated on STN: 7 Jan 2002
AB The invention separates defined, active complexes by a characteristic from Defined, active complexes that share a particular physicochemical characteristic such as density, surface charge or particle size are separated from complexes formed by the association of a polynucleotide with a transfecting component that increases transfection activity, such as a lipid, cationic lipid, liposome, ***peptide*** , cationic ***peptide*** , ***dendrimer*** or polycation. In a preferred embodiment, polynucleotide-transfecting component complexes are ultracentrifuged to resolve one or more bands corresponding to complexes having a specific polynucleotide-transfecting component interaction. Polynucleotide complexes having a cationic liposome transfecting component resolve into two primary bands corresponding to complexes formed either under excess lipid conditions or under excess polynucleotide conditions. In an alternate embodiment, polynucleotide-transfecting component complexes are resolved using cross-flow electrophoresis to identify complexes having specific interactions and to separate them from excess initial components.

L9 ANSWER 22 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2000:189843 BIOSIS
DN PREV200000189843
TI Oral uptake and translocation of a polylysine dendrimer with a lipid surface.
AU Florence, A. T. [Reprint author]; Sakthivel, T.; Toth, I.
CS Centre for Drug Delivery Research, School of Pharmacy, University of London, 29139, Brunswick Square, London, WC1N 1AX, UK
SO Journal of Controlled Release, (March 1, 2000) Vol. 65, No. 1-2, pp. 253-259. print.
CODEN: JCREEC. ISSN: 0168-3659.
DT Article
LA English
ED Entered STN: 17 May 2000
Last Updated on STN: 4 Jan 2002
AB A series of lipidic ***peptide*** ***dendrimers*** based on lysine with 16 surface alkyl (C12) chains has been synthesised in our laboratories. One of the series, a fourth generation dendrimer with a diameter of 2.5 nm was chosen to study its absorption after oral administration to female Sprague-Dawley rats (180 g, 9 weeks old). It was synthesised as the tritiated derivative (all acetyl portions) and had a molecular weight of 6300 and log P (octanol/water) of 1.24. First a single oral dose 14 mg/kg was administered by gavage. Maximum levels of dendrimer observed were 15% in the small intestine, 5% in the large intestine and 3% in the blood at 6 h after administration, while 1.5% reached the liver, 0.1% the spleen and 0.5% the kidneys. In a parallel study with a higher dose of 28 mg/kg, approximately 1% was absorbed via Peyer's patches of the small intestine at 3 h. The maximum uptake by small intestine enterocytes was 4% of the dose after 3 h. After 12 h, 0.3 and 4% dendrimer was measured respectively in Peyer's patches and enterocytes of the large intestine. When calculated on the basis of target tissue weight, the total percentage of the dose absorbed through Peyer's patches was greater than through normal enterocytes in the small intestine after 3 and 24 h, but the opposite was true in the large intestine. These levels of uptake and translocation are lower than those exhibited by polystyrene particles in the range from 50 to 3000 nm. This might suggest that there is an optimum size for nanoparticulate uptake by the gut.

L9 ANSWER 23 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2000:8191 BIOSIS
DN PREV200000008191
TI A direct method for the formation of ***peptide*** and carbohydrate ***dendrimers*** .
AU Mitchell, Jeffrey P. [Reprint author]; Roberts, Kade D. [Reprint author]; Langley, Jane; Koentgen, Frank; Lambert, John N. [Reprint author]
CS School of Chemistry, University of Melbourne, Grattan Street, Parkville, VIC, 3052, Australia
SO Bioorganic and Medicinal Chemistry Letters, (Oct. 4, 1999) Vol. 9, No. 19, pp. 2785-2788. print.
CODEN: BMCLE8. ISSN: 0960-894X.
DT Article
LA English
ED Entered STN: 23 Dec 1999
Last Updated on STN: 31 Dec 2001
AB Two new methods for the modification of PAMAM dendrimers have been developed which allow the covergent synthesis of either peptide or carbohydrate-bearing dendrimer molecules. Both methods involve condensation between hydroxylamino nucleophiles and appropriate carbonyl-bearing reaction partners.

L9 ANSWER 24 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:337060 BIOSIS
DN PREV199900337060
TI Distribution of a lipidic 2.5 nm diameter dendrimer carrier after oral administration.
AU Sakthivel, Thiagarajan; Toth, Istvan; Florence, Alexander T. [Reprint author]
CS Centre for Drug Delivery Research, School of Pharmacy, University of London, 29/39 Brunswick Square, London, WC1N 1AX, UK
SO International Journal of Pharmaceutics (Amsterdam), (June 10, 1999) Vol. 183, No. 1, pp. 51-55. print.
CODEN: IJPHDE. ISSN: 0378-5173.
DT Article
LA English
ED Entered STN: 24 Aug 1999
Last Updated on STN: 24 Aug 1999
AB The biodistribution of a lipidic ***peptide*** ***dendrimer*** has been studied after oral administration to female Sprague-Dawley rats (180 g, 9 weeks old). Uptake by gut epithelial tissue of the radiolabelled dendrimer molecule (mol. wt. 6300; diameter 2.5 nm; log P = 1.24) was studied in rats after a single oral dose by gavage (14 mg/kg). The maximum levels of dendrimer observed were 3% (blood), 1.5% (liver), 0.1% (spleen), 0.5% (kidneys), 15% (small intestine) and 5% (large intestine). Approximately 6% of a single administered dose (28 mg/kg) was recovered from the entire gastrointestinal tract while 1% was absorbed via the small intestine lymphoid tissue after 3 h; after 12 h, 0.1% was detected. The

maximum uptake by the non-lymphoid small intestine was 4% of the dose after 3 h. After 12 h, 0.3 and 4% dendrimer was measured in the lymphoid large intestine and the non-lymphoid large intestine, respectively. The total percentage of the administered dose absorbed through the lymphoid tissue wascomparatively greater than through the non-lymphoid tissue of the small intestine with respect to organ weight after 3 and 24 h.

L9 ANSWER 25 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:337059 BIOSIS
DN PREV199900337059
TI Inverse toroidal vesicles: Precursors of tubules in sorbitan monostearate organogels.
AU Murdan, Sudaxshina; Gregoriadis, Gregory; Florence, Alexander T. [Reprint author]
CS Centre for Drug Delivery Research, School of Pharmacy, University of London, 29-39 Brunswick Square, London, WC1N 1AX, UK
SO International Journal of Pharmaceutics (Amsterdam), (June 10, 1999) Vol. 183, No. 1, pp. 47-49. print.
CODEN: IJPHDE. ISSN: 0378-5173.
DT Article
LA English
ED Entered STN: 24 Aug 1999
Last Updated on STN: 24 Aug 1999
AB Sorbitan monostearate organogels are opaque, thermoreversible semi-solids whose microstructure consists of surfactant tubules dispersed in the organic continuous phase. Inverse toroidal vesicles are the precursors of the surfactant tubules. The gelation process was observed as an isotropic sol phase of sorbitan monostearate in isopropyl myristate was cooled using hot-stage light microscopy. At the gelation temperature, inverse toroidal vesicular structures were seen to grow in the organic phase. These toroids are thought to be analogous to other well-known vesicles, liposomes and niosomes, except for their toroidal (rather than spherical) shape and their inverse nature. They are rather short-lived structures: on further cooling of the sol phase, tubules form in the organic medium: it is speculated that the toroids elongate into tubular shapes or split into rod-shaped segments.

L9 ANSWER 26 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:150509 BIOSIS
DN PREV199900150509
TI Oral absorption of a novel dendrimer carrier.
AU Sakthivel, T. (Reprint author); Florence, A. T. [Reprint author]; Toth, I.
CS Centre Drug Delivery Res., Sch. Pharmacy, Univ. London 29/39, Bruswick Square, London WC1N 1AX, UK
SO European Journal of Pharmaceutical Sciences, (Aug., 1998) Vol. 6, No. SUPPL. 1, pp. S73. print.
Meeting Info.: Fourth European Congress of Pharmaceutical Sciences. Milan, Italy. September 11-13, 1998. European Federation for Pharmaceutical Sciences.
ISSN: 0928-0987.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LA English
ED Entered STN: 13 Apr 1999
Last Updated on STN: 13 Apr 1999

L9 ANSWER 27 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:96122 BIOSIS
DN PREV199900096122
TI Applications of dendrimers in bio-organic chemistry.
AU Kim, Yoonkyung; Zimmerman, Steven C. [Reprint author]
CS Dep. Chem., 600 S. Matthews Avenue, Univ. Illinois, Urbana, IL 61801, USA
SO Current Opinion in Chemical Biology, (Dec., 1998) Vol. 2, No. 6, pp. 733-742. print.
ISSN: 1367-5931.
DT Article
General Review; (Literature Review)
LA English
ED Entered STN: 4 Mar 1999
Last Updated on STN: 4 Mar 1999

L9 ANSWER 28 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1998:505370 BIOSIS
DN PREV199800505370
TI Average and maximum charge states of arginine-containing ***dendrimer*** -like ***peptide*** ions formed by electrospray ionization.
AU Schulze, Christian [Reprint author]; Heukeshoven, Jochen
CS Cent. Mol. Neurobiol., Univ. Hamburg, Martinstr. 52, D-20246 Hamburg, Germany
SO European Mass Spectrometry, (1998) Vol. 4, No. 2, pp. 133-139. print.
ISSN: 1356-1049.
DT Article
LA English
ED Entered STN: 18 Dec 1998
Last Updated on STN: 18 Dec 1998
AB The maximum and average charge states formed by electrospray ionization of dendrimer-like multiple antigenic peptides (MAPs) which differ in structure only in the presence of an arginine residue at the N-termini of their four peptide chains have been investigated. Stepwise addition of arginine residues leads to increased charging. It has been found that the average charge state is linearly correlated to the number of arginine residues which allows the conclusion that the four peptide chains are effectively independent. The average charge state zav is shifted with each added arginine residue by roughly 03 units towards lower m/z ratios. Modification of the alpha-amino groups by acetylation reduces zav as compared with the corresponding non-modified model peptides. This suggests that the N-terminal arginine is to some extent protonated on both its alpha-amino group and its side-chain guanidino group. The Coulomb repulsion is presumably reduced through intramolecular charge solvation in the N-terminal part of the peptide chains.

L9 ANSWER 29 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1998:424071 BIOSIS
DN PREV199800424071
TI Ligation of laminin fragments onto a PEG dendrimer.
AU Huang, Lei [Reprint author]; Wang, De-Xin [Reprint author]; Li, Shi-Jun
CS Inst. Materia Med., Chinese Acad. Med. Sci., Beijing 100050, China
SO Xu, X.-J. [Editor]; Ye, Y.-H. [Editor]; Tam, J. P. [Editor]. (1998) pp. 29-30. Peptides: Biology and chemistry. print.
Publisher: Kluwer Academic Publishers, PO Box 989, 3300 AZ Dordrecht, Netherlands; Kluwer Academic Publishers, 101 Phillip Drive, Norwell, Massachusetts 02061, USA.
Meeting Info.: 1996 Chinese Peptide Symposium. Chengdu, China. July 21-25,

1996.
ISBN: 0-7923-4963-6.
DT Book
Conference; (Meeting)
Book; (Book Chapter)
Conference; (Meeting Paper)
LA English
ED Entered STN: 2 Oct 1998
Last Updated on STN: 5 Nov 1998

L9 ANSWER 30 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1998:105842 BIOSIS
DN PREV199800105842
TI Oral uptake of a 2.5 nm diameter lipidic ***peptide*** ***dendrimer*** by lymphoid and non-lymphoid tissues.
AU Sakthivel, Thiagarajan [Reprint author]; Florence, Alexander T. [Reprint author]; Toth, Istvan
CS Centre Drug Delivery Res., Sch. Pharmacy, Univ. London, London, UK
SO Pharmaceutical Research (New York), (Nov., 1997) Vol. 14, No. 11 SUPPL., pp. S663. print.
Meeting Info.: Annual Meeting of the American Association of Pharmaceutical Scientists. Boston, Massachusetts, USA. November 2-6, 1997. American Association of Pharmaceutical Scientists.
CODEN: PHREEB. ISSN: 0724-8741.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LA English
ED Entered STN: 3 Mar 1998
Last Updated on STN: 3 Mar 1998

L9 ANSWER 31 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1997:150722 BIOSIS
DN PREV199799449925
TI Self-assembly of cyclic peptides on a dendrimer: Multiple cyclic antigen peptides.
AU Spetzler, Jane C.; Tam, James P. [Reprint author]
CS Dep. Microbiol Immunology, Vanderbilt Univ., MCN A5119, Nashville, TN 37232, USA
SO Peptide Research, (1996) Vol. 9, No. 6, pp. 290-296.
CODEN: PEREEO. ISSN: 1040-5704.
DT Article
LA English
ED Entered STN: 15 Apr 1997
Last Updated on STN: 15 Apr 1997
AB Multiple cyclic antigen peptides (McAPs) are dendrimers that have branched, multiple closed-chain architectures. We describe an approach for their stepwise, solid-phase synthesis that permits a self-assembly of cyclization reactions of a McAP with four copies of cyclic peptides in solution after their cleavage from the resin with all protecting groups removed. The conceptual framework of our approach is the development of a method favoring intrachain cyclization based on ring-chain tautomerism between an N-terminal Cys and an aldehyde attached to the side chain of Lys to form a loop linked by a thiazolidine ring. The McAP precursor contains an amino Cys(St-Bu) and an internal Lys (Ser). A trialkylphosphine is used to deblock Cys(St-Bu) on the amino terminus and to effect the concomitant thiazolidine formation with the glyoxyl moiety obtained from an oxidative conversion of the Ser on the Lys side chain. Two McAPs, each containing cyclic peptides of 17 and 24 amino acid residues, have been prepared. To evaluate intrachain cyclization yields, a cleavage site as Asp-Pro is incorporated at the COOH terminus of each monomeric loop and subsequently released after completion of the cyclization by treatment with formic acid at an elevated temperature. Reversed-phase high performance liquid chromatography analyses of the liberated cyclic peptide monomer with synthetic standards support the theory that intrachain cyclization is the predominant cyclization pathway and validate the usefulness of this ring-chain tautomerization concept in the self-assembly of cyclic peptides on a branched ***peptide*** ***dendrimer*** .

L9 ANSWER 32 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1996:224816 BIOSIS
DN PREV199698780945
TI Evaluation of adjuvants that enhance the effectiveness of antisense oligodeoxynucleotides.
AU Hughes, J. A. [Reprint author]; Aronsohn, A. I.; Avrutskaya, A. V.; Juliano, R. L.
CS Sch. Pharm., Dep. Pharmaceutics, Univ. Florida, Gainesville, FL 32610, USA
SO Pharmaceutical Research (New York), (1996) Vol. 13, No. 3, pp. 404-410.
CODEN: PHREEB. ISSN: 0724-8741.
DT Article
LA English
ED Entered STN: 8 May 1996
Last Updated on STN: 8 May 1996
AB Purpose: A factor limiting the effectiveness of antisense (AS) deoxyoligonucleotides (ODNs) is inefficient transport to their sites of action in the cytoplasm and in the nucleus. The extent of ODN transfer from endosomes to cytosol seems to be an important determinant of ODN effects. Consequently, the development of compounds (adjuvants) that enhance endosome to cytosol transfer may be vital in AS ODN therapeutics. Methods: In this report, we evaluated compounds for their potential to enhance the effects of phosphorothioate ODNs. The test system used a CHO cell line expressing the enzyme chloramphenicol acetyltransferase (CAT) under the control of an inducible promoter. Several potential endosomal disrupting adjuvants were screened, including: (a) fusogenic peptides; (b) a pH sensitive polymer; (c) polymeric dendrimers, (d) cationic liposomes and (e) a pH sensitive surfactant N-dodecyl 2-imidazole-propionate (DIP). ODN effects were evaluated at the protein level by quantitating levels of CAT. Results: The use of AS ODN in co-incubation with the GALA peptide, cationic liposomes or 5th generation dendrimers resulted in a 35-40% reduction in CAT expression. The mismatched ODN had no effect on CAT expression. Only modest effects were observed with the other adjuvants. DIP did not increase ODN activity by itself; however, when the liposomal form was used a significant reduction (48%) in CAT activity was seen. Conclusions: We found the fusogenic ***peptide*** GALA, ***dendrimers*** , as well as the liposomal form of DIP, could significantly enhance the effects of ODNs.

L9 ANSWER 33 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1995:152545 BIOSIS
DN PREV199598166845
TI Unprotected peptides as building blocks for branched peptides and ***peptide*** ***dendrimers*** .
AU Spetzler, Jane C.; Tam, James P. [Reprint author]

CS Dep. Microbiol. Immunol., A5115 MCN, Vanderbilt Univ., Nashville, TN 37232, USA
SO International Journal of Peptide and Protein Research, (1995) Vol. 45, No. 1, pp. 78-85.
CODEN: IJPPC3. ISSN: 0367-8377.
DT Article
LA English
ED Entered STN: 11 Apr 1995
Last Updated on STN: 11 Apr 1995
AB We describe two new site-specific ligation methods for preparing branched ***peptide*** ***dendrimers*** such as multiple antigen peptide (MAP). Both methods are based on the general approach of exploiting the specific reaction between a weak base and an aldehyde under acidic conditions so that unprotected peptides can be used as building blocks. A weak base such as benzoyl hydrazine or 1,2-amino thiol of cysteine was attached to the N-terminal of an unprotected peptide as nucleophile to react with the alkyl aldehyde on the core matrix of MAP to form a stable hydrazone linkage or a five-membered thiazolidine ring, respectively. Two synthetic peptides rich in basic amino acids such as lysine and arginine were used as models in the ligation reactions in solution to give ***peptide*** ***dendrimers*** containing four or eight copies of peptide immunogens. The resulting macromolecules with the MW ranging from 5 to 16 kDa were unambiguously characterized by laser-desorption mass spectrometry. Furthermore, we also optimized the conditions of these ligation reactions using elevated temperature and a water-miscible organic co-solvent to give a combination of rate enhancement about 10 fold. These optimizations allowed the ligation reactions to be completed in lt 4 h instead of 2-3 days. Our ligation approach also has the advantages of flexibility so that peptides can be attached through the amino or carboxyl terminus to the core matrix. The phenyl hydrazone linkage and the five-membered ring were found to be stable at physiological pH suitable for immunization. Thus our results provide two practical and useful methods for the synthesis of macromolecular ***peptide*** ***dendrimers*** for vaccines, artificial proteins and enzymes.

L9 ANSWER 34 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1994:431061 BIOSIS
DN PREV199497444061
TI Synthesis of ***peptide*** ***dendrimer*** .
AU Rao, Chang; Tam, James P. [Reprint author]
CS Dep. Microbiology Immunology, Vanderbilt Univ., MCN A5119, Nashville, TN 37232, USA
SO Journal of the American Chemical Society, (1994) Vol. 116, No. 15, pp. 6975-6976.
CODEN: JACSAT. ISSN: 0002-7863.
DT Article
LA English
ED Entered STN: 11 Oct 1994
Last Updated on STN: 11 Oct 1994

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(FILE 'HOME' ENTERED AT 15:20:51 ON 09 MAR 2004)

FILE 'STNGUIDE' ENTERED AT 15:21:11 ON 09 MAR 2004

FILE 'HOME' ENTERED AT 15:21:14 ON 09 MAR 2004

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DISSABS, DDFB, DDFU, DGENE, DRUGB, DRUGMONOG2, ...' ENTERED AT 15:21:26 ON 09 MAR 2004

SEA DENDRIMER OR DENDRIMERS

4	FILE ADISCTI
5	FILE ADISINSIGHT
8	FILE AGRICOLA
73	FILE ANABSTR
1	FILE AQUASCI
25	FILE BIOBUSINESS
8	FILE BIOCOMMERCE
617	FILE BIOSIS
105	FILE BIOTECHABS
105	FILE BIOTECHDS
297	FILE BIOTECHNO
10	FILE CABA
63	FILE CANCERLIT
6602	FILE CAPLUS
80	FILE CEABA-VTB
79	FILE CEN
57	FILE CIN
199	FILE CONFSCI
2	FILE CROPU
269	FILE DISSABS
152	FILE DDFU
925	FILE DGENE
7	FILE IMSDRUGNEWS
169	FILE DRUGU
7	FILE IMSRESEARCH
34	FILE EMBAL
1055	FILE EMBASE
539	FILE ESBIOBASE
86	FILE FEDRIP
1	FILE FROSTI
1	FILE FSTA
384	FILE GENBANK
532	FILE IFIPAT
1076	FILE JICST-EPLUS
1	FILE KOSMET
86	FILE LIFESCI
7	FILE MEDICONF
626	FILE MEDLINE
78	FILE NTIS
1296	FILE PASCAL
8	FILE PHAR
1	FILE PHIC
21	FILE PHIN
189	FILE PROMT
3	FILE RDISCLOSURE
5058	FILE SCISEARCH
406	FILE TOXCENTER
2052	FILE USPATFULL

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            178   FILE USPAT2
              1   FILE VETU
            686   FILE WPIDS
            686   FILE WPINDEX
L1             QUE DENDRIMER OR DENDRIMERS
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     FILE 'CAPLUS, SCISEARCH, USPATFULL, PASCAL, JICST-EPLUS, EMBASE, DGENE,
     WPIDS, MEDLINE, BIOSIS, ESBIOBASE, IFIPAT, TOXCENTER, GENBANK, BIOTECHNO,
     DISSABS, CONFSCI, PROMT, USPAT2, DRUGU, BIOTECHDS, FEDRIP, LIFESCI,
     CEABA-VTB, CEN, NTIS, ANABSTR, CANCERLIT, ...' ENTERED AT 15:22:27 ON 09
     MAR 2004
L2         24017 S L1

     FILE 'CAPLUS, SCISEARCH, USPATFULL, PASCAL, JICST-EPLUS, EMBASE, DGENE,
     WPIDS, MEDLINE, BIOSIS, ESBIOBASE, IFIPAT, TOXCENTER, GENBANK, BIOTECHNO,
     DISSABS, CONFSCI, PROMT, USPAT2, DRUGU, BIOTECHDS, FEDRIP, LIFESCI,
     CEABA-VTB, CEN, NTIS, ANABSTR, CANCERLIT, ...' ENTERED AT 15:23:50 ON 09
     MAR 2004

     FILE 'HOME' ENTERED AT 15:24:47 ON 09 MAR 2004

     FILE 'CAPLUS, BIOSIS, MEDLINE, LIFESCI' ENTERED AT 15:25:33 ON 09 MAR 2004
L3           223 S (PEPTIDE OR POLYPEPTIDE) (10A) (DENDRIMER?)
L4           155 DUP REM L3 (68 DUPLICATES REMOVED)

     FILE 'HOME' ENTERED AT 15:26:43 ON 09 MAR 2004

     FILE 'CAPLUS, BIOSIS, MEDLINE' ENTERED AT 15:27:54 ON 09 MAR 2004
L5            55 S L4 AND PD<19990723
L6            55 DUP REM L5 (0 DUPLICATES REMOVED)
L7             0 S L6 AND (MULTIFUNCTIONAL (W) CORE)
L8             0 S L6 AND ORNITHINE

     FILE 'HOME' ENTERED AT 15:30:43 ON 09 MAR 2004

     FILE 'BIOSIS' ENTERED AT 15:31:36 ON 09 MAR 2004
L9            34 S (PEPTIDE OR POLYPEPTIDE) (2A) DENDRIMER?

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COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                              67.45     230.04

 SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 15:32:29 ON 09 MAR 2004
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